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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,191	12/21/2000	Toshiyuki Hasegawa	0666.1640000	7023

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EXAMINER

LUM, LEE S

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 04/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

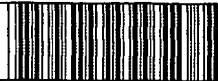
Office Action Summary

Application No.
09/741,191

Applicant
Hasegawa, Toshiyuki

Examiner
Lum, Lee S.

Art Unit
3611



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Dec 21, 2000

2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-57 is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-57 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3

20) ☐ Other: _____

DETAILED ACTION

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claims 1 and 32, "a pair of first and second...members" is unclear because the phrase can be interpreted two ways: there are first and second members, thus making a "pair" of members, and, that each of first and second members comprise a pair of members, resulting in a total of four members.

Dependent Claims 6, 15, 18, 27 and 38 are unclear because their respective independent Claims recite "three or more axles", and these dependents recite "three [axles] in total".

In Claim 15, line 3, "the other two..." is unclear.

In Claim 23, the last three lines are unclear.

In Claims 4, 34 and 47, "frontmost" lacks antecedent basis.

In Claim 36, the last two lines are unclear (and "input means" lacks antecedent basis).

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-6, 11-18, 23-27, 32-38 and 45-51 (6, 15, 18, 27, 38 as best understood) are rejected under 35 U.S.C. 102(e) as being anticipated by Wernick 6085853.

Re **Claims 1-6**, Wernick discloses a multi-wheel vehicle, best depicted in Figs 1 and 3, comprising

three or more axles 1-4, where one is frontmost steering axle 14,
first 11, and second 13, coaxial shafts/transmission members ,
wherein the steering axle interlocks with the second shaft,
and one of the other axles interlocks with the first shaft, and,
clutch/power dividing means 42 interposed between the shafts, permitting different
speeds for each shaft via differential 8.

Re **Claims 32-38**, the patent further discloses
engine (inherent) which powers one (main device 8) of three or more transaxle devices
8/9/18/20, including frontmost steering device 14,
wherein power is transmitted from the main device to the first shaft.

Re **Claims 11-18, 23-27, 45-51**, the patent further discloses
input shaft 6,
coaxial output shafts 11/12 with respective differential side gears (Col 3, lines 38-40), and,
differential 8 between the shafts.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3A. **Claims 7-10, 19-22, 28-31, 41-44 and 54-57** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wernick in view of Stieg 4462271.

Re **Claims 7, 8, 10, 19, 20, 22, 28-31, 41-44 and 54-57**, Wernick does not explicitly show a braking system, while Stieg discloses

brake halves 52/54 (hydraulic ("wet") - Col 3, lines 24-25), pedal (inherent), and, differential means 100 for locking the output shafts together (Col 5, second full paragraph).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to include brakes so that the vehicle may be stopped, and that the brakes may be hydraulic, as is well-known in the art.

Re **Claims 9, 21 and 30**, Wernick does not explicitly disclose that the nonsteerable axle includes a brake, but official notice is made of the fact that either a steerable or nonsteerable axle can have a brake.

3B. **Claims 39 and 52** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wernick in view of Kaspar 5848664.

Wernick does not disclose a continuously-variable transmission, while Kaspar shows this element 35. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include this element in order to increase the efficiency of drive power to the wheels according to the load conditions.

3C. **Claims 40 and 53** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wernick in view of Kaspar, and in further view of Krettenauer et al 4639008.

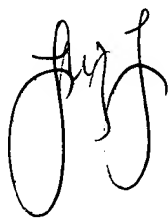
Wernick does not disclose a power take-off (PTO) unit, while Krettenauer shows this element 8. It would have been obvious to one with ordinary skill in the art at the time the invention was made to include PTO to increase torque capabilities of the drive system, thus increase drive power under different load conditions.

4. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure, in addition to that listed on the IDS filed 12/21/00: Dong et al 5950750, Schlosser et al 5860889, Schlosser 5711389, Ackroyd 5285866, Hicks 4977972, Somerton-Rayner 4966244, Ze-ying 4903792, Ikegami et al 4886141, Wu 4727769, Lanzer 4712448, Sigl 4671373, Stieg 4280583.

5. Communication with the Examiner and USPTO

Any inquiry concerning this communication should be directed to Ms. Lum at (703) 305-0232, 9-530, M-F. Our fax number is (703) 308-2571. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to customer assistance at (703) 306-5771.

Ms. Lee S. Lum
Examiner
4/2/02



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